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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,344	09/22/2005	Nicolas Villain	FR 030033	1254
24737 7590 10/18/2007 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510				
			EXAMINER CWERN, JONATHAN	
			ART UNIT 3737	PAPER NUMBER
			MAIL DATE 10/18/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/550,344

Applicant(s)

VILLAIN ET AL.

Examiner

Jonathan G. Cwern

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3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6/5/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 6/5/07 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

3. Claims 8, 10, and 11 are objected to because of the following informalities:
4. In claim 8, on line 6, it is suggested to change the phrase "collection means" to "correction means" to remain consistent with claim 1.
5. In claim 10, on line 2, it is suggested to change the phrase "regions map" to "sub-regions map" to remain consistent with claim 1.
6. It is also recommended to edit the claims to remove citations in parentheses.
7. Appropriate correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Demonceau et al. (US 6389310).

Demonceau show, with respect to claims 1-11, acquisition means to acquire a volume of 3D data comprising an object of interest (column 18, lines 40-55); segmenting a region of interest comprising the object of interest within the volume (column 28, lines 25-30); displaying a 2D representation of the volume and segmented region of interest (column 31, lines 40-50); calculation a sub-region map within the segmented region (watersheds used to removed segments at the border of the image and segments isolated in the background, this new image caused by watershed segmentation can be called the sub-region map, column 28, lines 30-50); excluding sub-regions from the region of interest using the sub-region map (column 28, lines 30-50). Demonceau also show, calculating a map of distances (distances are used to identify and segment the Aorta Descendens, the combination of these calculated distances can be called a "map of distances", column 21, lines 1-25; a map of distances is also used to correct for movement of the Valvular Plane, again the combination of the calculated distances can be called a "map of distances", column 25, lines 10-25); merging sub-regions (column 22, lines 20-45); user control to select sub-regions for exclusion (column 32, lines 5-35); updating the 2D representation to take into account effects of the excluded regions (the 2D displays can be calculated earlier in case the user makes no changes, this implies that if the user makes changes, the 2D displays will have to be updated, column 31, lines 40-50; further discussion of user control, two-dimensional representation, and

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displays can be found in column 31, line 50-column 39, line 15, wherein the user makes changes if desired to re-segment the image, the 2D representations are made and then displayed); labeling the sub-regions (column 20, line 27); forming a volume of digital data including the object of interest (forming is taken to mean reconstructing the data, column 18, lines 45-55); and a computer program product (column 3, lines 25-40).

It should be noted that specific examples are given above for each claim, however they can be interpreted in a variety of ways. Demonceau teaches a method involving segmenting an image to label each part of the heart. The entire heart can be considered the region of interest, and each part of the heart can be considered a sub-region or sub-region map. And in finding and segmenting out each part of the heart, Demonceau is excluding certain sub-regions from other sub-regions. In other words, the very act of segmenting involves excluding one region from another region! There are various segmentations performed in each step to isolate individual regions of the heart. In addition, there is a broader segmentation performed at the end in which the user can choose to segment the images again based on the user's preference. All of these different segmentations should be considered, as any can be considered the overall region of interest, or a more specific sub-region map.

Conclusion


10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached Notices of References Cited.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan G. Cwern whose telephone number is 571-270-1560. The examiner can normally be reached on Monday through Friday 9:30AM - 6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JC
9/28/07


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